

What is claimed is:

1 1. A radio base station for performing a radio communication with
2 a plurality of mobile stations with a space division multiplex
3 method, the radio base station being characterized by:

4 transmitting an instruction to stop performing a
5 diversity reception to a mobile station which the radio base
6 station is to communicate with by the space division multiplex
7 method.

1 2. The radio base station of Claim 1 comprising:

2 a creation means for creating a piece of traffic channel
3 assignment information after receiving a traffic channel
4 assignment request from a mobile station;

5 an attachment means for attaching the diversity
6 reception stop instruction to the piece of traffic channel
7 assignment information; and

8 a transmission means for transmitting the piece of
9 traffic channel assignment information with the diversity
10 reception stop instruction, to the mobile station as a response to
11 the traffic channel assignment request.

1 3. The radio base station of Claim 1 comprising:

2 a determination means for determining, after receiving
3 a traffic channel assignment request from a mobile station,
4 whether to allow the mobile station to space-division-multiplex

5 with another mobile station which has communicated with the radio
6 base station;

7 a creation means for creating a piece of traffic channel
8 assignment information when the determination means determines to
9 allow the mobile station to space-division-multiplex with the
10 other mobile station;

11 an attachment means for attaching the diversity
12 reception stop instruction to the piece of traffic channel
13 assignment information; and

14 a transmission means for transmitting the piece of
15 traffic channel assignment information with the diversity
16 reception stop instruction, to the mobile station as a response to
17 the traffic channel assignment request, and transmitting the
18 diversity reception stop instruction to the other mobile station
19 through a traffic channel.

1 4. A mobile station for performing a diversity reception, the
2 mobile station having a plurality of antennas and comprising:

3 a judgement means for judging whether a diversity
4 reception stop instruction has been received from a radio base
5 station; and

6 a stop means for stopping the diversity reception when
7 the judgement means judges that a diversity reception stop
8 instruction has been received.

1 5. The mobile station of Claim 4, further comprising:

2 a reception means for receiving a piece of traffic
3 channel assignment information from the radio base station as a
4 response to a traffic channel assignment request sent to the radio
5 base station, wherein

6 the judgement means judges whether the diversity
7 reception stop instruction has been attached to the received piece
8 of traffic channel assignment information.

1 6. The mobile station of Claim 5, wherein

2 the judgement means further judges whether data received
3 by the reception means through a traffic channel includes the
4 diversity reception stop instruction.